REMARKS

Applicant respectfully requests reconsideration and allowance of the subject application. Claims 1-23, 25-43, and 46-47 are pending in the instant Application. Claim 1 is amended in this Response. Claims 1, 12, 32, 37 and 43 are independent claims.

Introductory Comments

The undersigned contacted Jamie Vent, the Examiner of the instant Application, to inquire about the indication on the current Office Action's cover sheet that the Action is Final. After discussing the matter, the Examiner agreed that the Final selection-block on the cover sheet was inadvertently selected. The Examiner promised to send an Interview Summary indicating that the current Office Action was improperly made Final, but the Summary was not received. If a subsequent action is required in the instant Application, the Examiner is requested to indicate that the current Office Action is not a Final Office Action.

The Office has rejected claims 1-11, 37-44, and 46-47 in view of the combination of Vallone and Browne (see discussion below). As the Office is aware, a proper obviousness rejection requires: 1. one or more references, 2. where the one or more references are available to the inventor(s), 3. that the references teach the claimed invention, 4. a suggestion/motivation to combine the references, and 5. that the combination of the reference make the claimed invention obvious to one of ordinary skill in the art.

Applicant has carefully reviewed the Office's reasoning for combining Vallone and Brown and is unable to fine the required suggestion/motivation to

combine the two references. In particular, on page 3 of the current Office Action, the Office states

> Blatter et al [Browne] discloses a system wherein many different formats are entered into the system, as seen in Figure 1. The various inputs 101a-101h are [in] various format[s] and thereby encoded to allow the system to properly process the data. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the recording system, as disclosed by Vallone et al, and further incorporate a system that receives multiple formats, as disclosed by Blatter [Browne].

The above reasoning for combining Vallone and Browne does not provide any motivation as to why one of ordinary skill in the art would combine the references relied upon by the Office. Instead, the Office *concludes* that Browne and Vallone may be combined, but the conclusion reached is not supported by a *suggestion/motivation* as to why a skilled artisan would choose to make the combination. Such a suggestion/motivation is required when formulating a rejection under 35 U.S.C. §103(a). Until a proper suggestion/motivation to combine Vallone and Browne is provided, the Office has failed to meet its burden of establishing a *prima facie* case of obviousness and the rejection must be withdrawn.

Additionally, the Office is asked to review the substance of the foregoing rejection. The Office asserts that Vallone teaches subject matter set forth by the claims of the instant Application. This is followed by an assertion that Browne teaches "a system wherein many different formats are entered into the system." But the Office does not tell the Applicant why Browne is relied upon. But, how is the Vallone patent deficient with respect to the claimed invention? The Office states that it would be useful "to use the recording system, as disclosed by Vallone et al, and further incorporate a system that receives multiple formats, as disclosed

by Blatter [Browne]." The Applicant can only presume that the Office is saying that Vallone does not process or receive signals that are in different formats (i.e., encoded differently). Is the Applicant's understanding of the Office's position correct? If a subsequent Office Action is required, the Office is respectfully requested to clarify the rejection in view of Vallone and Browne.

The Office has used a similar conclusionary statement in rejecting claim independent claim 12 in view of Vallone and Inuoe. Thus, the Office has failed to meet its burden of establishing a *prima facie* case of obviousness for this rejection as well. Accordingly, the Applicant respectfully submits that the rejection in view of Vallone and Inuoe is improper and must be withdrawn.

Rejection Under 35 U.S.C. § 103

Claims 1-11, 37-44, and 46-47 stand rejected under 35 U.S.C. §103(a) as being obvious in view of U.S. Patent No. 6,642,939 to Vallone et al. (hereinafter "Vallone") and PCT Publication WO 92/22983 to Browne. In addition, claims 12-23 and 25-36 stand rejected under 35 U.S.C. §103(a) as being obvious in view of Vallone and U.S. Patent No. 5,832,085 to Inuoe et al (hereinafter "Inuoe"). Applicant respectfully traverses these rejections.

Vallone generally discloses a schedule presentation system that is designed to present program schedule information to a user in an intuitive manner. The system includes the use of an input section 101, a media switch 102 and an output section 103. The input section 101 is capable of receiving television (TV) input streams in various forms. Some of those forms include analog NTSC and PAL broadcast signals. Other forms include digital TV signals. The digital TV signals include signals originating from Digital Satellite System (DSS), Digital Broadcast

Services (DBS), or Advanced Television Standards Committee (ATSC) sources. (See column 5, lines 4-16.)

When a TV signal in analog form (NTSC or PAL) is received, the input section 101 encodes the signal using a MPEG encoding method and passes the encoded signal to the media switch 102. When a digital TV signal (DSS, DBS, or ATSC) is received, such as in MPEG2 transport format, MPEG encoded streams are extracted and passed to the media switch 102. (See column 5, lines 17-26.)

The media switch 102 includes a CPU, a hard disk 104 and a memory 104. The media switch 102 is capable of buffering a MPEG stream into the memory 104. The media switch 102 is also capable of sending the MPEG stream to the output section 103. (See column 5, lines 36-41.)

It is important for the Office to realize that the Vallone system does not teach or suggest the concept of handing data streams that are encoded in various encoding formats. Because of this, Vallone does not teach or suggest a system that is capable of receiving data streams that are encoded in various encoding formats; demultiplexing data streams that are encoded in various encoding formats; separating data streams that are encoded in various encoding formats; and/or capturing data streams that are encoded in various encoding formats.

Browne discloses a system that receives a plurality of input signals 101a-101f. The received signals may be recorded, processed, routed, and displayed by the Brown system. (See page 6 of Browne). The Office asserts it would be useful "to use the recording system, as disclosed by Vallone et al, and further incorporate a system that receives multiple formats, as disclosed by Blatter [Browne]." As will be discussed below, Browne does not cure the deficiencies of Vallone and it is

not even clear that it would be possible to combine Browne with Vallone as the Office suggests.

The Applicant will now explain how the claimed invention of the instant Application is neither taught nor suggested by the combination of Vallone and Browne.

Claim 1 of the present application, as amended, recites:

> 1. A method comprising:
> receiving a first broadcast data stream encoded using a first encoding format;
> receiving a second broadcast data stream encoded using a second encoding format;
> demultiplexing the first broadcast data stream while maintaining the first encoding format of the first broadcast data stream;
> demultiplexing the second broadcast data stream while maintaining the second encoding format of the second broadcast data stream;
> storing the first broadcast data stream on a storage device in the first encoding format;
> storing the second broadcast data stream on the storage device in the second encoding format; and
> time shifting the first and second broadcast data streams.

The Office Action cites Fig. 1 of Vallone as well as column 5, lines 20-25 and column 8, lines 10-18 as support for receiving a broadcast data stream encoded using different encoding formats. (See Office Action, page 2.) However, Applicant submits that the cited portions of Vallone fail to disclose the elements of amended claim 1. In particular, the language of claim 1 includes receiving, demultiplexing, and storing "a first broadcast data stream encoded using a first encoding format" and "a second broadcast data stream encoded using a second encoding format". Applicant submits that the Vallone reference fails to disclose

this handling of two different broadcast data streams encoded using different encoding formats as recited in claim 1.

Vallone discloses the use of a single encoding format (MPEG). The signals received and processed by the Vallone system are originally in MPEG2 format, which is a standard used to format digital TV signals when the signals are transmitted to a receiver. Specifically, MPEG2 is used to bundle a collection of signals encoded in the MPEG format. (See column 5, lines 13-17.) The signals bundled in MPEG2 format are unbundled into individual MPEG streams before they processed by the Vallone system. The unbundling is handled by the input section 101. The unbundled signals encoded in MPEG format are then passed to other parts of the Vallone system. The use of a single encoding format (i.e., MPEG encoding) described in Vallone is different from the elements of claim 1, which include two different encoding formats associated with two different broadcast data streams.

Vallone can process analog (NTSC and PAL) and digital (DBS, DSS, and ATSC) signals. However, this capability is not the same as being able to receive, demultiplex, and store "a first broadcast data stream encoded using a first encoding format" and "a second broadcast data stream encoded using a second encoding format". The difference is how Vallone handles the analog and digital signals.

The analog TV signals described in Vallone are not encoded; the digital signals that the Vallone system handles are encoded. Vallone states this explicitly in column 5, lines 19-26. Therefore, so that analog signals can be handled in the system, Vallone *encodes* the analog signals into MPEG format for communication to the media switch 102. The encoded analog signals are in the same MPEG

format as the incoming digital signals. The Office is again directed to column 5. lines 19-26, where the foregoing is plainly described.

The Office maintains that Fig. 7 and the disclosure of column 8, lines 1-18 further substantiates that the Vallone system is capable of receiving, demultiplexing, and storing "a first broadcast data stream encoded using a first encoding format" and "a second broadcast data stream encoded using a second encoding format". Applicant disagrees with the Office for the following reasons.

Fig. 7 illustrates a media switch 701 that receives input from an MPEG encoder 703 and MPEG audio 704. Generally, these encoders would be part of input section 101 described above. In particular, as discussed, the input section 101 is responsible for encoding analog signals TV signals received by the Vallone system. Vallone further discusses that the media switch 701 may be configured to handle MPEG2 signals if a MPEG2 transport demultiplexer is used. However, Vallone explicitly states that this would require *deleting* the MPEG encoder 703 and the MPEG audio encoder 704. (See column 8, lines 3-6.) The foregoing means that in order to handle another encoding technique, a current encoding must be eliminated. Vallone describes eliminating the handling of MPEG encoded signals in favor of handling MPEG2 encoded signals.

If the Vallone system were capable of receiving, demultiplexing, and storing "a first broadcast data stream encoded using a first encoding format" and "a second broadcast data stream encoded using a second encoding format", as is asserted by the Office, then the deletion of MPEG encoder 703 and the MPEG audio encoder 704 would be unnecessary. Actually, removing the MPEG encoder 703 and the MPEG audio encoder 704 in favor of a MPEG2 transport demultiplexer directly indicates that the media switch 701 is unable to receive,

demultiplex, and store "a first broadcast data stream encoded using a first encoding format" and "a second broadcast data stream encoded using a second encoding format".

The Office relies upon Browne to show that signals of "multiple formats" can be received by a system. The Applicant does not dispute that the Browne signals 101a-101f may have different formats. What the Office does not articulate is how the Vallone system would be able to process these signals discussed by Browne. It is the Applicant's position that Vallone would be able to process only MPEG2 signal bundles and analog signals, if such signals were included in the signals 101a-101f discussed by Browne. However, nothing in the Browne patent discloses or even suggests the claim limitations that are not taught by the Vallone patent, as discussed hereinabove. Therefore, even if one of ordinary skill in the art were to combine Vallone and Browne, which the Applicant does not acquiesce one would do, the combination does not render the rejected claims obvious.

Accordingly, for at least these reasons, Applicant respectfully submits that claim 1 is allowable over Vallone in view of Browne. Given that claims 2-11 depend from claim 1, Applicant respectfully submits that those claims are likewise allowable over Vallone and Browne for at least the reasons discussed above.

Claim 37 of the present application recites:

> 37. One or more computer-readable media having stored thereon a computer program that, when executed by one or more processors, causes the one or more processors to:
> separate the components of a first broadcast data stream encoded using a first encoding format;
> separate the components of a second broadcast data stream encoded using a second encoding format;
> store the components of the first and second broadcast data streams on a hard disk drive;

receive a request to play back the stored components of the first broadcast data stream;

retrieve the stored components of the first broadcast data stream from the hard disk drive;

decode the components of the first broadcast data stream; and

render the components of the first broadcast data stream.

The combination of Vallone and Browne fails to disclose the limitations of claim 37. As discussed above with respect to claims 1, Vallone fails to disclose a system that handles both a first broadcast data stream encoded using a first encoding format and a second broadcast data stream encoded using a second encoding format. Therefore, the combination does not teach the limitations "separate the components of a first broadcast data stream encoded using a first encoding format; separate the components of a second broadcast data stream encoded using a second encoding format."

Further, review of Vallone and Browne shows that the combination fails to disclose storing the components of the broadcast data stream on a hard disk drive prior to retrieving and decoding those components, as recited in claim 37.

The text rejecting claim 37 does not discuss or even reference Browne as being relied upon to remedy deficiencies of the Vallone patent. Yet, claim 37 is rejected under 35 U.S.C. §103(a) in view of Vallone and Browne. In a subsequent Non-Final Office Action, if on is deemed necessary, the Office is asked to address this apparent oversight in the current Office Action. Nonetheless, as was discussed in connection with claim 1, Browne does not remedy the deficiencies of the Vallone patent.

Accordingly, the combination of Vallone and Browne fails to disclose the elements of claim 37. Thus, for at least these reasons, Applicant respectfully submits that claim 37 is allowable over Vallone and Browne. Given that claims

38-42 depend from claim 37, Applicant respectfully submits that those claims are likewise allowable over Vallone and Browne for at least the reasons discussed above.

Claim 43 of the present application, as amended, recites:

> 43. An apparatus comprising:
> a capture module configured to capture a first data stream and a second data stream, wherein the first data stream is represented by a first data format and the second data stream is represented by a second data format, and wherein the first data stream is encoded using a first encoding format and the second data stream is encoded using a second encoding format;
> a data storage module configured to store the captured data streams in their encoded formats; and
> a rendering module configured to decode the data streams and to render the data streams from the data stored on the data storage module.

As discussed above with respect to claims 1 and 37 the combination of Vallone and Browne does not to disclose the handling of a first data stream encoded using a first encoding format and a second data stream encoded using a second encoding format, as recited in claim 43. As discussed above, Vallone discloses the use of a single encoding format (MPEG). In contrast, the elements of claim 43 recite the use of multiple different encoding formats. Therefore, the combination of Vallone and Browne fails to disclose "a first data format and the second data stream is represented by a second data format, and wherein the first data stream is encoded using a first encoding format and the second data stream is encoded using a second encoding format," as recited in claim 43.

Again, the text rejecting claim 43 does not discuss or even reference Browne as being relied upon to remedy deficiencies of the Vallone patent. Yet,

claim 43 is rejected under 35 U.S.C. §103(a) in view of Vallone and Browne. In a subsequent Non-Final Office Action, if on is deemed necessary, the Office is asked to address this apparent oversight in the current Office Action. Nonetheless, as was discussed in connection with claim 1, Browne does not remedy the deficiencies of the Vallone patent.

Accordingly, the combination of Vallone and Browne fails to disclose the elements of claim 43. Thus, for at least these reasons, Applicant respectfully submits that claim 43 is allowable over Vallone and Browne. Given that claims 46-47 depend from claim 43, Applicant respectfully submits that those claims are likewise allowable over Vallone and Browne for at least the reasons discussed above.

Claim 12 of the present application, as amended, recites:

> 12. A method comprising:
> receiving a first digital data stream encoded using a first encoding format;
> receiving a second digital stream encoded using a second encoding format;
> separating components of the first digital data stream;
> storing the components of the first digital data stream on a storage device, wherein the components are stored in the first encoding format;
> receiving a command to play back the first digital data stream;
> retrieving at least one of the stored components of the first digital data stream from the storage device;
> decoding the retrieved component; and
> rendering the components of the first digital data stream in a manner that corresponds to the received play back command.

Applicant submits that the combination of Vallone and Inuoe does not disclose the elements of claim 12. In particular, the language of claim 12 includes receiving "a first *digital* data stream encoded using a first encoding format" and "a

second *digital* data stream encoded using a second encoding format". As discussed above with respect to claim 1, Vallone discloses the use of a single encoding format (MPEG). Vallone fails to mention receiving two different digital data streams encoded using different encoding formats, as recited in claim 12. The use of a single encoding format described in Vallone is different from receiving two different data streams with different encoding formats. Moreover, it cannot be fairly said that the analog TV signals (NTSC or PAL) and the digital TV signals (DBS, DSS, or ATSC) teach the indicted limitations of claim 12. First, one signal is analog and the other is digital. Second, even if the Vallone system were capable of processing two digital signals, as discussed above, those signals could be processed only if they were in MPEG format. Thus, Vallone fails to disclose the elements of claim 12.

The Office relies upon Inuoe to show that signals of "different digital encoding formats" can be received by a system. The Applicant does not dispute that Inuoe shows signals can have different digital encoding formats. What the Office does not articulate is how the Vallone system would be able to process these signals disclosed by Inuoe. It is the Applicant's position that Vallone would be able to process only MPEG2 signal bundles and analog signals, if such signals were included in the signals discussed by Inuoe. However, nothing in the Inuoe patent discloses or even suggests the claim limitations that are not taught by the Vallone patent, as discussed hereinabove. Therefore, even if one of ordinary skill in the art were to combine Vallone and Inuoe, which the Applicant does not acquiesce one would do, the combination does not render the rejected claims obvious.

The Office asserts, on page 10 of the current Office Action, that Vallone receives a first digital signal in MPEG2 format and a second digital signal in MPEG format. This is not taught by Vallone. What Vallone teaches is receiving signals in MPEG2 bundled format. (See column 5, lines 13-18.) MPEG2 is a transport standard used to bundle and transport individual MPEG signals. The Vallone system receives the MPEG2 signal and uses the input section 101 to un-bundle the signal, which creates individual MPEG signals. These individual MPEG signals are processed by the Vallone system. Therefore, contrary to the Office's assertion, the Vallone system does not receive an MPEG2 bundle and a MPEG signal and process these two signals entities individually.

Further, Applicant submits that the combination of Vallone and Inuoe fails to disclose "storing the components of the first digital data stream on a storage device, wherein the components are stored in the first encoding format" prior to "receiving a command to play back the first digital data stream", as recited in claim 12.

Accordingly, the combination of Vallone and Inuoe fails to disclose the elements of claim 12. Thus, for at least these reasons, Applicant respectfully submits that claim 12 is allowable over Vallone and Inuoe. Given that claims 13-23 and 25-31 depend from claim 12, Applicant respectfully submits that those claims are likewise allowable over Vallone and Inuoe for at least the reasons discussed above.

Claim 32 of the present application recites:

> 32. A method comprising:
> receiving at least two broadcast data streams, one of the at least two broadcast streams utilizing a first encoding format and another of the at least two broadcast streams utilizing a second encoding format;
> separating components of one of the at least two broadcast streams;
> storing the components of one of the at least two broadcast streams on a storage device;
> retrieving the components of the stored one of the at least two broadcast streams from the storage device;
> decoding the retrieved components;
> rendering the components of one of the at least two broadcast streams; and
> receiving a request to pause rendering of one of the at least two broadcast streams currently being rendered, in response to the pause request:
> halting rendering of one of the at least two broadcast streams currently being rendered;
> continuing to store the components of the halted one of the at least two broadcast streams on the storage device.

Applicant submits that the combination of Vallone and Inuoe fails to disclose "rendering the components of the broadcast data stream; and receiving a request to pause rendering of the broadcast data stream, in response to the pause request: halting rendering of the broadcast data stream; continuing to store the components of the broadcast data stream on the storage device", as recited in claim 32. The Office Action cites column 9, lines 60-68 and column 10, lines 1-10 of Vallone as support for these limitations. That portion of Vallone states:

> To pause the pipeline, for example, an event called "pause" is sent to the first object in the pipeline. The event is relayed on to the next object and so on down the pipeline. This all happens a synchronously to the data going through the pipeline. Thus, similar to applications such as telephony, control of the flow of MPEG streams is asynchronous and separate from the streams themselves. This allows for a simple logic design that is at the same

time powerful enough to support the features described previously, including pause, rewind, fast forward and others. In addition, this structure allows fast and efficient switching between stream sources, since buffered data can be simply discarded and decoders reset using a single event, after which data from the new stream will pass down the pipeline. Such a capability is needed, for example, when switching the channel being captured by the input section, or when switching between a live signal from the input section and a stored stream.

The cited language of Vallone discusses objects in a pipeline and communicating a "pause" event through the pipeline. However, the cited language fails to disclose halting the rendering of a broadcast data stream and continuing to store the components of the broadcast data stream on the storage device. The mere mention of a "pause" event does not disclose halting the rendering of a broadcast data stream. Further, the "pause" event makes no reference to continuing to store components of the broadcast data stream.

Furthermore, claim 32 recites "receiving at least two broadcast data streams, one of the at least two broadcast streams utilizing a first encoding format and another of the at least two broadcast streams utilizing a second encoding format." As is discussed in detail above, the combination of Vallone and Inuoe fails to teach or suggest the concept of receiving broadcast signals in a first and second encoding format, respectively. The combination of Vallone and Inuoe merely teaches the capability of receiving analog signals and encoding those signals, and processing digital signals in MPEG encoded format. The system passes the encoded signals to a module that handles outputting of the encoded signals. The encoded signals may only be encoded using one particular encoding scheme if they are to be properly handled by the system.

Accordingly, the combination of Vallone and Inuoe fails to disclose the elements of claim 32. Thus, for at least these reasons, Applicant respectfully submits that claim 32 is allowable over Vallone and Inuoe. Given that claims 33-36 depend from claim 32, Applicant respectfully submits that those claims are likewise allowable over the combination of Vallone and Inuoe for at least the reasons discussed above.

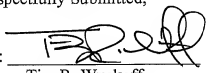
In accordance with the above, Applicant respectfully requests that the §103 rejections be withdrawn.

Conclusion

Claims 1-23, 25-43, and 46-47 are in condition for allowance. Applicant respectfully requests reconsideration and issuance of the subject application. Should any matter in this case remain unresolved, the undersigned attorney respectfully requests a telephone conference with the Examiner to resolve any such outstanding matter.

Respectfully Submitted,

Date: 4-10-2006

By: 

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